PROCEEDINGS

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December 10, 1840.

SIR JOHN W. LUBBOCK, Bart., V.P. and Treas., in the Chair.

A Memorandum, addressed to the Royal Society, November 28th, 1840, by Martin Barry, M.D., F.R.S., L. & Ed., was read.

Dr. Barry, in reference to the memorandum of Mr. Wharton Jones, claiming for himself the contemporaneous discovery of the germinal spot in the mammiferous ovum, states that, after having bestowed considerable pains to ascertain who was the original observer of a structure which has proved to be of great importance, he had mentioned incidentally in his paper the result of his inquiry, namely, that the merit of the discovery was due to Professor Rudolph Wagner; but observes that the inquiry may be resumed by all who will take the trouble to examine the works, both in German and English, on this subject; and that he will ever be open to conviction, and ready to declare his change of opinion, on the production of sufficient evidence.

A communication was also read, entitled "Supplementary Note to a Paper, entitled 'Researches in Embryology. Third Series: a Contribution to the Physiology of Cells.'" By Martin Barry, M.D., F.R.S., L. & Ed.

In the paper referred to, the author had shown, that after the ovum of the Rabbit has entered the Fallopian tube, cells are found collected around its thick transparent membrane or "zona pellucida"; which cells, by coalescing, form a thinner membrane—the incipient chorion. He now adds, that the formation of this thinner membrane does not exhaust the whole layer of these cells; but that a stratum of them is found remaining on, and entirely surrounding the "zona", after the thinner membrane has risen from it. The fluid space also, between the "zona" and the thinner membrane, presents a large number of cells or discoid objects, each of which contains a brilliantly pellucid and highly refracting globule. In some parts, several of these discs, closely joined together, have the appearance of shreds of membrane; in others, there are found pellucid globules, some of which are exceedingly minute. The discs now mentioned collect at the periphery, for the thickening of the chorion. They seem to proceed from the region of the "zona"; and probably have their origin in the cells by which the latter is surrounded. If so, the author thinks we cannot suppose them to arise in any other way than that which, according to his observations, appears to be the universal mode of reproduction; namely, by division of the nuclei of the parent cells. Nor can we suppose that minuteness is any hinderance to their subsequent increase by the same means.

December 17, 1840.

The **MARQUIS OF NORTHAMPTON**, President, in the Chair.

The following communications were made to the Society, viz.

1. "Present state of the Diamond Mines of Golconda." By T. J. Newbold, Esq., of the Madras Army, A.D.C. to Major-General Wilson, K.B. Communicated by S. H. Christie, Esq., M.A., Sec. R.S.

The author gives an account of the tract of country in which the diamond mines of Golconda are situated, and of the processes by which the diamonds are obtained. The latter consist merely in digging out the rolled pebbles and gravel, and carrying them to small square reservoirs, raised on mounds, having their bottom paved with stones, and then carefully washing them. Dry weather is selected to carry on these operations, in order to avoid the inconvenience and expense of draining. A description is then given of the mines of Banaganpully, Munimudgoo, Condapilly, Sumbhulpoor, and Poonah in Bundlekund.

2. "Magnetic-term Observations made at Milan." By Professor Carlini, Director of the Observatory at that place: also "Magnetic-term Observations made at Prague." By Professor Kreil, Director of the Observatory at that place.

3. "On the Production of Heat by Voltaic Electricity." By J. P. Joule, Esq. Communicated by P. M. Roget, M.D., Sec. R.S.

The inquiries of the author are directed to the investigation of the cause of the different degrees of facility with which various kinds of metal, of different sizes, are heated by the passage of voltaic electricity. The apparatus he employed for this purpose consisted of a coil of the wire, which was to be subjected to trial, placed in a jar of water, of which the change of temperature was measured by a very sensible thermometer immersed in it; and a galvanometer, to indicate the quantity of electricity sent through the wire, which was estimated by the quantity of water decomposed by that electricity. The conclusion he draws from the results of his experiments is, that the calorific effects of equal quantities of transmitted electricity are proportional to the resistances opposed to its passage, whatever may be the length, thickness, shape, or kind of metal which closes the circuit: and also that, *cæteris paribus*, these effects are in the duplicate ratio of the quantities of transmitted electricity; and consequently also in the duplicate ratio of the velocity of transmission. He also infers from his researches that the heat produced by the combustion of zinc in oxygen is likewise the consequence of resistance to electric conduction.

The President informed the Meeting that the Council had voted the following Address to Her Majesty, the Queen:—

"*To the Queen's Most Excellent Majesty.*

"The Humble Address of the President, Council, and Fellows of the Royal Society of London for improving Natural Knowledge.

"Most Gracious Sovereign,

"We, Your Majesty's most dutiful and loyal subjects, the President, Council, and Fellows of the Royal Society of London for improving Natural Knowledge, approach Your Majesty with the most heartfelt satisfaction at the birth of the Princess Royal. We feel the deepest gratitude to the Almighty Disposer of events for His gracious protection vouchsafed to Your Majesty in your late confinement, and we ardently pray that the same protection may continue to be long afforded to a life so precious to all the inhabitants of these realms.

"It is also our most ardent hope that Your Majesty's daughter may grow up to be a pattern of every virtue that can adorn and dignify her high station, and that Your Majesty may continue to be blest with every happiness, both public and private."

The President also stated to the Meeting, that the Council had adopted the following Address to His Royal Highness Prince Albert, of Saxe Coburg and Gotha:—

"*To His Royal Highness Prince Albert of Saxe-Coburg and Gotha, K.G., F.R.S.*

"The humble Address of the President, Council, and Fellows of the Royal Society of London for improving Natural Knowledge.

"May it please Your Royal Highness,

"We, the President, Council, and Fellows of the Royal Society of London for improving Natural Knowledge, beg leave to tender to Your Royal Highness our warmest congratulations on the safety and recovery of Your Royal Highness's Consort, our beloved Sovereign, and on the birth of Your Royal Highness's daughter. That she may be the bond of your connubial happiness is our most sincere wish, and also that Divine Providence may long, very long, preserve Your Royal Highness's life, in possession of every blessing, both as a husband and as a father."

The Society then adjourned over the Christmas recess, to meet again on the 7th of January next.

January 7, 1841.

Sir JOHN W. LUBBOCK, Bart., V.P. and Treas., in the Chair.

Julius Jeffreys, Esq., was balloted for and duly elected into the Society.

The following communication was read, viz.—

"Variation of the Magnetic Declination, Horizontal Intensity, and Inclination observed at Milan on the 23rd and 24th December 1840." Communicated by Professor Carlini, Director of the Milan Observatory.

A paper was also read, entitled, "On the Chorda dorsalis." By Martin Barry, M.D., F.R.S.S. L. & E.

The author of this communication, after pointing out the similarity in appearance between an object noticed by him in the mammiferous ovum, and the incipient chorda dorsalis described by preceding observers in the ova of other Vertebrata, mentions some essential differences between his own observations and those of others as to the nature and mode of origin of these objects, and their relation to surrounding parts. Von Baer, the discoverer of the chorda dorsalis, describes this structure as "the axis around which the first parts of the fœtus form." Reichert supposes it to be that embryonic structure which serves as "a support and stay" for parts developed in two halves. The author's observations induce him to believe that, instead of being "the axis *around which* the first parts of the fœtus form," the incipient chorda is the last-formed row of cells, which have pushed previously-formed cells farther out, and that, instead of being merely "a support and stay" for parts developed in two halves, the incipient chorda occupies the centre out of which the "two halves" originally proceeded as a single structure, and is itself in the course of being enlarged by the continued origin of fresh substance in its most internal part.

The author enters into a minute comparison of the objects in question; from which it appears that the incipient chorda is not, as Baer supposed, developed into a globular form at the fore end, but that the linear part is a process from the globular; and that the pellucid cavity contained within the latter—a part of prime importance, being the main centre for the origin of new substance—is not mentioned by Von Baer. Farther, that the origin of the "laminæ dorsales" of this naturalist (the "central nervous system" of Reichert) is not simultaneous with, but anterior to, that of the chorda.

The author then reviews the observations of Rathke and Reichert on the chorda dorsalis, which contain internal evidence, he thinks, of a process in the development of Fishes, Reptiles, and Birds, the same as that which he has observed in Mammalia; namely, the origin of the embryo out of the nucleus of a cell.

And it is his opinion that this observation may assist to solve a question on which physiologists are not agreed; for it shows, that if the nucleus of a cell is a single object, the first rudiments of the embryo are not two halves. The author thinks that unless the very earliest periods are investigated, it is in vain that we attempt to learn what that is, of which the rudiments of the embryo are composed. From not attending to this, physiologists have supposed their "primitive trace" to arise in the substance of a membrane, which the author, in his second series on the embryo, showed could not be the case. To the same cause he thinks is referable an opinion recently advanced by Reichert, that the first traces of the new being are derived from cells of the yelk.

January 14, 1841.

Sir JOHN W. LUBBOCK, Bart., V.P. and Treas., in the Chair.

Charles Enderby, Esq. and James Cosmo Melvill, Esq. were balloted for and duly elected into the Society.

A paper was read, entitled, "On the Corpuscles of the Blood." Part II. By Martin Barry, M.D., F.R.S.S. L. and E.

The observations recorded in this memoir are founded on an examination of the blood in every class of vertebrated animals, in some of the Invertebrata, and in the embryo of Mammalia and Birds. The nucleus of the blood-corpuscle, usually considered as a single object, is here represented as composed, in some instances, of two, three, or even many parts; these parts having a constant and determinate form. In the substance surrounding the nucleus, the author has frequently been able to discern, not merely "red colouring matter," but cell-like objects; and he points out an orifice as existing at certain periods in the delicate membrane by which this substance is surrounded. In a former memoir he had differed no less from previous observers regarding "cells." He had shown, for instance, that the nucleus of the cell, instead of being "cast off as useless, and absorbed," is a centre for the origin, not only of the transitory contents of its own cell, but also of the two or three principal and last-formed cells, destined to succeed that cell; and that a separation of the nucleus into two or three parts, is not, as Dr. Henle had supposed in the case of the Pus and Mucus-globule (the only instances in which the separation in question had been observed), the effect of acetic acid, used in the examination,—but that such separation is natural, apparently common to nuclei in general, and forming part of the process by which cells are reproduced. The author had farther shown the so-called nucleolus to be not a distinct object existing before the nucleus, but merely one of a series of appearances arising in succession, the one within the other, at a certain part of the nucleus, and continuing to arise even after the formation of the cell. These views he now confirms; and in the present paper shows that they admit of being extended to the corpuscles of the blood.

He then compares appearances observed in the latter with those he had traced in the ovum. These relate to the number of parts of which the nucleus is at different periods composed,—the nature of the nucleolus,—the communication between the nucleolus and the exterior of the cell,—the formation of the contents of the cell out of the nucleus,—the final division of the nucleus into the foundations of a limited number of young cells, destined to succeed the parent cell,—and the escape of the young cells for this purpose. It follows from these investigations, that the corpuscles of the blood are generated by a process essentially the same as that giving origin to those cells which are the immediate successors of the germinal vesicle, or original parent cell; it being also by a continuation of the same process that the corpuscle of the blood divides itself into the minuter objects figured by the author in his former paper on the blood.

He adds, that in its form and internal state, the blood-corpuscle found in the adult of certain animals, very much resembles that existing only in the fœtal life of others. It is incidentally remarked, that the fœtal brain, at certain periods, appears to consist almost entirely of objects very much resembling those which, in some stages, form the nuclei in the fœtal corpuscles of the blood.

The author concludes, by expressing his opinion, that the mode of evolution of the minute mammiferous ovum is deserving of close attention, in connexion with some of the processes by which nourishment is communicated, and the growth of the body effected, at all future periods of life.

January 21, 1841.

Sir JOHN BARROW, Bart., V.P., in the Chair.

Peyton Blackiston, M.A. & M.D., Captain Henry Rowland Brandreth, R.E., and Joseph Edye, Esq., were balloted for and duly elected into the Society.

A paper was in part read, entitled, "On the action of certain Inorganic Compounds, when introduced directly into the Blood." By J. Blake, Esq., M.R.C.S. Communicated by P. M. Roget, M.D., Sec. R.S.

January 28, 1841.

The MARQUIS OF NORTHAMPTON, President, in the Chair.

The reading of a paper entitled, "On the action of certain Inorganic Compounds when introduced directly into the Blood." By James Blake, Esq., M.R.C.S. Communicated by P. M. Roget, M.D., Sec. R.S., was resumed and concluded.

The present paper is a continuation of a memoir read at the Académie des Sciences of Paris, in 1839, and entitled, " Effets de diverses substances salines, injectées dans le systême circulatoire *.

After some preliminary remarks on the mode in which the experiments were conducted, and on the assistance derived from the *hæmadynamometer* of Poiseuille (or instrument for measuring the pressure of the blood circulating in the vessels), the author gives a list of the various saline substances of which he noted the effects when they were severally injected either into the venous or the arterial systems, arranged according to the nature of those effects. He finds, in general, that all the salts having the same base exert similar actions when introduced directly into the blood. He carefully inquires into the phænomena apparently arising from the direct contact of each of the substances above enumerated with the animal tissues; and more particularly into the effects produced on the heart, on the muscular and the nervous tissues, and on the pulmonary and systemic capillaries.

The first series of experiments related are those on the action of the salts of magnesia: these are found, when introduced in any quantities into the blood, to arrest altogether the action of the heart; but a still more remarkable effect which results, is the complete prostration of muscular power. The salts of zinc have a similar operation under the same circumstances, but produce the same effects in smaller quantities. The action of the salts of copper, of lime, of strontia, of baryta, and of lead, are considered successively in the order in which they are more closely related by their physiological actions. The author particularly notices the peculiar action which the salts of the three last-named substances exercise on the muscular tissues, occasioning contractions in them during many minutes after death produced by their introduction into the blood. These muscular movements were, in some cases, observed forty-five minutes after the cessation of the heart's action. Experiments with the salts of silver and of soda are then detailed; substances, which exhibit a remarkable similarity in their actions on the pulmonary tissue, on the heart, and on the systemic capillaries: for while, in the case of all the other salts already mentioned, death seems to be produced by the destruction of the irritability of the heart, the fatal result with the salts of silver and of soda is the consequence of their action on the tissue of the lungs. The physiological actions of the salts of ammonia and of potass were found by the author not to correspond with any of the preceding. Although agreeing perfectly with one another in their action upon the heart and systemic capillaries, they differ extremely in their effects on the nervous tissue; ammonia being particularly distinguished from all inorganic compounds in this respect, and being very analogous to poisons derived from organic products, which it also resembles in its chemical properties.

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* Published in the "Archives Générales de Médecine; Nov. 1839."

The general conclusion which the author is led to draw from these researches is, that there exists a close relation between the chemical properties of the substances experimented upon, and their physiological effects; his experiments tending to prove, that, when introduced into the blood, substances which are isomorphous exert similar actions on the living tissues. He notices, however, two exceptions to this law; namely, the similarity of the actions exerted on the pulmonary tissue by the salts of lead with those of silver, although these salts are not isomorphous; and also the action on the nervous tissue of the salts of ammonia being different from that of the salts of potass. But he remarks that the oxide of lead bears a close analogy to the oxide of silver in its relation to organic compounds. The general fact previously announced by the author in his memoir read to the Academy of Sciences at Paris, namely, that salts with the same base have analogous actions, may be considered as a corollary of the above law.

February 4, 1841.

Sir JOHN W. LUBBOCK, Bart., V.P. and Treas., in the Chair.

David Francis Atcherley, Esq., was balloted for and duly elected into the Society.

A paper was read, entitled, "On some Electro-Nitrogurets." By Wm. Robert Grove, Esq., M.A., F.R.S.

The author states that he has made many attempts to render permanent the ammoniacal amalgam, and that he has succeeded in freezing it by means of solid carbonic acid, during which solidification, and also while in its solid state, it underwent no chemical change. He subsequently attempted to procure a permanent compound by electrolyzing a solution of hydrochlorate of ammonia with an extremely fusible alloy at the cathode; but this attempt was unsuccessful. It then occurred to him, that by using an oxidable metal at the anode, which could be revived in conjunction with nascent hydrogen and nitrogen at the cathode, one or both of these elements might be combined with the solid metal, and so form permanent compounds.

The experiment made in this manner with the metals zinc, cadmium, and copper, was perfectly successful. A spongy mass collected at the cathode, which floated upon the liquid, and which, when washed and dried, was analysed by heating in a tube retort; five grains of the zinc compound gave 0·73 of a cubic inch of permanent gas, which on examination proved to be nitrogen with one-fourth hydrogen. The same quantity of the cadmium compound gave 0·207 cubic inch of nitrogen with no admixture of hydrogen. A like weight of the copper compound gave 0·107 of nitrogen. No ammonia was evolved from either; and the author is inclined to think that the hydrogen yielded by the zinc compound resulted from the reaction of the metal upon combined water. The specific gravity of specimens of these substances which the author tried were respectively 4, 6, 4, 8, and 5, 9. A mixed solution of chloride of gold and hydrochlorate of ammonia, electrolyzed with platinum electrodes, gave a black powder of the specific gravity 10·3; five grains of which, being heated, gave only 0·05 cubic inch of gas. The author proceeds to observe, that the similarity in appearance and mode of formation of these compounds and of the mercurio-ammoniacal amalgam, is strong evidence of identity of constitution, and that the non-permanence of the latter substance is due to the mobility of the mercury; for if we place the compounds in similar circumstances, that is, solidify the mercurial one, or liquefy those of the other metals, the phænomena are perfectly analogous. The experiments also bear immediately upon those of Thénard, Savart, and others, where ammonia, passed over heated metals, was found to be decomposed more completely by the oxidable than by the inoxidable metals, and to alter their physical characters without materially increasing their weight. On examining papers connected with this subject, the author found that Mr. Daniell had cursorily noticed a deposit somewhat analogous to those here treated of, which was formed upon the negative plate of his constant battery when this was charged on the zinc side with hydrochlorate of ammonia, and the nature of which that gentleman observed was worthy of further examination, but had not had time to investigate.

February 11, 1841.

The MARQUIS OF NORTHAMPTON, President, in the Chair.

The Right Hon. Sir Richard Hussey Vivian, Bart., G.C.B., &c., and Samuel Cartwright, Esq., were balloted for, and duly elected into the Society.

A paper was read, entitled, "Contributions to Terrestrial Magnetism, No. 2." By Major Edward Sabine, R.A., V.P.R.S.

This paper is the second of a series, in which the author purposes to communicate to the Royal Society the results of magnetic observations in different parts of the globe, having for their object to supply the requisite data for deducing the numerical elements corresponding to the present epoch of the general theory of terrestrial magnetism. It consists of two sections; the first comprises the observations of Captain Belcher, R.N., and the officers of H. M. S. Sulphur, at twenty-nine stations on the west coast of America, and the adjacent islands, between the latitudes of 60° 21′ N. and 18° 05′ S. The second contains a new determination, by the same officers, of the magnetic elements at Otaheite, made in consequence of the discrepancies in the results obtained by previous observers, and of a note in M. Gauss's Allgemeine Theorie, in which Otaheite is spoken of as a highly important station for the future improvement of the calculations of the theory. Abstracts are given of the original observations which are deposited in the Hydrographic Office of the Admiralty, as well as a full detail of the processes of reduction by which their results have been computed. The values of the horizontal and total intensities are expressed in terms by which the results of observation are immediately comparable with the maps of MM. Gauss and Weber in the " Atlas des Erdmagnetismus."

By an investigation into the " probable error " of a single independent determination of the magnetic intensity with Hansteen's apparatus, derived from the data furnished by Captain Belcher's observations, the author shows the extreme improbability that the differences in the results obtained at Otaheite by Messrs. Erman, FitzRoy and Belcher, should be occasioned by instrumental or observational error. They are also far greater than can, with any degree of probability, be ascribed to periodical or accidental variations in the magnetic force from its mean value. The only known cause adequate to their explanation is what may with propriety be termed *Station error*; that is, local disturbing influences, in an island composed chiefly of volcanic rocks, and where the spot of observation selected by the different observers may not have been precisely the same.

By a reference to the magnetic survey of the British Islands, the occurrence of station error is shown to be frequent in countries of far less decided igneous character than Otaheite; and that its existence may always be apprehended where rocks of that nature approach to, or rise through, the superficial soil. The absolute determinations of fixed observatories are as liable to station error as those of the magnetic traveller, since no continuance or repetition of the observations can lead to an elimination of the error; it consequently presents a practical difficulty to the proposed determination of the elements of the theory from exact observation at only a few selected positions on the globe. The remedy is to be found in the combination of fixed observatories and magnetic surveys: the observations of the survey, being made in concert with, and based on those of the fixed observatory, will be furnished thereby with corrections for the secular, periodical, and accidental variations of the elements, and will consequently determine *mean* values: and a proper combination of the mean values thus determined, over a space sufficiently extensive to neutralize *district* anomalies, as well as those of a more strictly local character, will furnish, in their turn, a correction for the station error, if any, of the fixed observatory.

A paper was also read, entitled, " On the Calculation of Attractions, and the Figure of the Earth." By C. J. Hargreave, B.A., of University College. Communicated by John T. Graves, M.A., F.R.S., Professor of Jurisprudence, University College, London.

The principal object of the calculations contained in this paper is to investigate the figure which a fluid, consisting of portions, varying in density according to any given law, would assume, when every particle is acted upon by the attraction of every other, and by a centrifugal force arising from rotatory motion. That such has been the original condition of the earth has been assumed as the foundation of most of the mathematical calculations connected with this inquiry; although the hypothesis itself may admit of doubt. The principal difficulty of this problem consists in the computation of the attraction of a body of any given figure, and composed of strata varying in their densities according to any given law. In solving it, the author follows the steps of Laplace as far as the point where the equation, known by his name, first appears. It has, however, since been discovered by Mr. Ivory, that the theorem of Laplace is true only of spheroids of a particular kind, and consequently it is to this kind that Laplace's solution of the problem is restricted. The method given in the present paper is not confined in its operation to any particular class of spheroids; the coefficients of the series into which the required function is developed being determined absolutely, and without reference to the form of the spheroid to which they are to be applied. The principal change consists in the different manner of treating the partial differential equation; and its integration, effected by the author, renders the analysis more direct, the operations more simple, and the theory complete.

February 18, 1841.

The MARQUIS of NORTHAMPTON, President, in the Chair.

Sir Richard Jenkins, G.C.B., &c., John Clendinning, M.D., and Eaton Hodgkinson, Esq., were balloted for, and duly elected into the Society.

A paper was in part read, entitled, " Memoir on a portion of the Lower Jaw of an Iguanodon, and other Saurian Remains discovered in the strata of Tilgate Forest, in Sussex." By Gideon Algernon Mantell, Esq., LL.D., F.R.S.

February 25, 1841.

Sir JOHN WILLIAM LUBBOCK, Bart., V.P., and Treasurer, in the Chair.

The Right Honourable Lord Viscount Melbourne, and the Rev. Mark Aloysius Tierney, were balloted for, and duly elected into the Society.

The reading of a paper, entitled, "Memoir on a portion of the Lower Jaw of an Iguanodon, and other Saurian Remains discovered in the strata of Tilgate Forest, in Sussex." By Gideon Algernon Mantell, Esq., LL.D., F.R.S., was resumed and concluded.

When the author communicated to the Royal Society, in the year 1825, a notice on the teeth of an unknown herbivorous reptile, found in the limestone of Tilgate Forest, in Sussex, he was in hopes of discovering the jaws, with the teeth attached to it, of the same fossil animal, which might either confirm or modify the inferences he had been led to deduce from an examination of the detached teeth. He was, however, disappointed in the object of his search until lately, when he has been fortunate enough to discover a portion of the lower jaw of a young individual, in which the fangs of many teeth, and the germs of several of the supplementary teeth, are preserved. The present paper is occupied with a minute and circumstantial description of these specimens, and an elaborate inquiry into the osteological characters and relations presented by the extinct animals to which they belonged, as compared with existing species of Saurian reptiles; the whole being illustrated by numerous drawings. The comparison here instituted furnishes apparently conclusive proof that the fossil thus discovered is a portion of the lower jaw of a reptile of the Lacertine family, belonging to a genus nearly allied to the Iguana. From the peculiar structure and condition of the teeth it appears evident that the *Iguanodon* was herbivorous; and from the form of the bones of the extremities it may be inferred that it was enabled, by its long, slender, prehensile fore-feet, armed with hooked claws, and supported by its enormous hinder limbs, to pull down and feed on the foliage and trunks of the arborescent ferns, constituting the flora of that country, of which this colossal reptile appears to have been the principal inhabitant.

Some particulars are added respecting various other fossil bones found in Tilgate Forest, and in particular those of the *Hylæosaurus*, or Wealden Lizard (of which genus the author discovered the remains of three individuals), and of several other reptiles, as the *Megalosaurus*, *Plesiosaurus*, and several species of *Steneosaurus*, *Pterodactylus*, and other Chelonia, as also one or more species of a bird allied to the Heron. All these specimens are now deposited in the British Museum.

A paper was also read, entitled, "On a Theorem of Fermat." By Sir John William Lubbock, Bart., V.P., and Treas. R.S.